

AMENDMENTS TO THE CLAIMS

Please amend the claims as set forth in the following listing. This listing of claims will replace all prior versions, and listings, of claims for the present application.

1. (Previously Presented) A device for dynamically allocating network bandwidth on a per user basis comprising:

a processor;

a first network interface coupled to the processor;

a second network interface coupled to the processor;

a hardware storage medium accessible by the processor;

a set of computer instructions stored on the storage medium, executable by the processor to:

retrieve a set of user profiles, wherein each user profile corresponds to a specific user in a set of users;

establish at least one network bandwidth limit for each user in the set of users based on the corresponding user profile for that user;

for each user in the set of users, regulate network bandwidth usage associated with that user based on the at least one network bandwidth limit established for that user;

receive a network communication from a network application running on a first user device communicatively coupled to the first network interface, wherein the network communication is destined for a second device on a second network coupled to the second network interface;

retrieve a first user profile for a first user associated with the first user device from an authentication database based on user credentials provided by the first user;

initiate a control session for the first user;

based on attributes in the first user profile, establish user specific rules and conditions that are bound to the first user during the control session based on the first user device and the user credentials provided by the first user for the control session; and

dynamically update the at least one network bandwidth limit for at least one user from the set of users to account for the first user gaining access to the second network.

2. (Previously Presented) The device of Claim 1, wherein the computer instructions are further executable to dynamically update the at least one network bandwidth limit for each user in the set of users.

3. (Previously Presented) The device of Claim 1, wherein the computer instructions are further executable to dynamically update the at least one network bandwidth limit for each user in the set of users to account for a new user connecting to the device.

4. (Previously Presented) The device of Claim 1, wherein the computer instructions are further executable to dynamically update the at least one network bandwidth limit for at least one user based on a time of day.

5. (Previously Presented) The device of Claim 1, wherein the computer instructions are further executable to dynamically update the at least one network bandwidth limit based on utilization averaging for the corresponding user.

6. (Previously Presented) The device of Claim 1, wherein the computer instructions are further executable to dynamically update the at least one network bandwidth limit by modifying a traffic control rule containing the at least one network bandwidth limit.

7. (Previously Presented) The device of Claim 1, wherein the computer instructions are further executable to meter network bandwidth usage on a per user basis.

8. (Previously Presented) The device of Claim 1, wherein the computer instructions are further executable to establish a traffic control rule for each user containing the at least one network bandwidth limit for that user.

9. (Previously Presented) The device of Claim 8, wherein the computer instructions are further executable to dynamically update the at least one network bandwidth limit for the at least one user by updating the traffic control rule for the at least one user.

10. (Original) The device of Claim 9, wherein the computer instructions are further executable to access each traffic control rule from an IP table based on an indicator associated with each traffic control rule.

11. (Currently Amended) The device of Claim 10, wherein the indicator comprises a MAC address associated with the at least one user.

12. (Currently Amended) The device of Claim 10, wherein the indicator comprises an IP address associated with the at least one user.

13. (Previously Presented) The device of Claim 1, wherein the computer instructions are further executable to:

access a traffic control rule for the first user that includes an upload network bandwidth limit for the first user; and

determine if the network communication causes the upload network bandwidth limit to be exceeded.

14. (Previously Presented) The device of Claim 13, wherein the computer instructions are further executable to receive the network communication from the first user over a wireless network.

15. (Previously Presented) The device of Claim 1, wherein the computer instructions are further executable to:

receive a network communication over a network connected to the second network interface destined for a first user from the set of users;

access a traffic control rule for the first user that includes a download network bandwidth limit for the first user; and

determine if the network communication causes the download network bandwidth limit to be exceeded.

16. (Original) The device of Claim 15, wherein the computer instructions are further executable to receive the network communication from the user over a wireless network.

17. (Original) The device of Claim 1, wherein the computer instructions are further executable to monitor sessions on a per user basis.

18. (Previously Presented) The device of Claim 1, wherein the computer instructions are further executable to:

prioritize network bandwidth allocations for networked applications for at least one user based on the corresponding user profile for that user.

19. (Previously Presented) A device for allocating network bandwidth on a per user basis comprising:

a hardware computer readable storage medium;

a set of computer instructions stored on the computer readable storage medium,

executable by a processor to:

retrieve a set of user profiles, wherein each user profile corresponds to a specific user in a set of users;

establish at least one network bandwidth limit for each user in the set of users based on the corresponding user profile for that user;

for each user in the set of users, regulate network bandwidth usage associated with that user based on the at least one network bandwidth limit established for that user;

receive a network communication from a first user device communicatively coupled to the device, wherein the network communication is destined for a second device on a network communicatively coupled to the device;

retrieve a first user profile for a first user associated with the first user device from an authentication database based on user credentials provided by the first user;

initiate a control session for the first user;

based on attributes in the first user profile, establish user specific rules and conditions that are bound to the first user during the control session based on the first user device and the user credentials provided by the first user for the control session; and

dynamically update the at least one network bandwidth limit for at least one user from the set of users to account for the first user gaining access to the network.

20. (Previously Presented) The device of Claim 19, wherein the computer instructions are further executable to dynamically update the at least one network bandwidth limit for each user in the set of users.

21. (Previously Presented) The device of Claim 19, wherein the computer instructions are further executable to dynamically update the at least one network bandwidth limit for each user in the set of users to account for a new user connecting to the device.

22. (Previously Presented) The device of Claim 19, wherein the computer instructions are further executable to dynamically update the at least one network bandwidth limit for at least one user based on a time of day.

23. (Previously Presented) The device of Claim 19, wherein the computer instructions are further executable to dynamically update the at least one network bandwidth limit based on utilization averaging for the corresponding user.

24. (Previously Presented) The device of Claim 19, wherein the computer instructions are further executable to dynamically update the at least one network bandwidth limit by modifying a traffic control rule containing the at least one network bandwidth limit.

25. (Previously Presented) The device of Claim 19, wherein the computer instructions are further executable to meter network bandwidth usage on a per user basis.

26. (Previously Presented) The device of Claim 19, wherein the computer instructions are further executable to establish a traffic control rule for each user containing the at least one network bandwidth limit for that user.

27. (Previously Presented) The device of Claim 19, wherein the computer instructions are further executable to dynamically update the at least one network bandwidth limit for the at least one user by updating the traffic control rule for the at least one user.

28. (Original) The device of Claim 27, wherein the computer instructions are further executable to access each traffic control rule from an IP table based on an indicator associated with each traffic control rule.

29. (Currently Amended) The device of Claim 28, wherein the indicator comprises a MAC address associated with the at least one user.

30. (Currently Amended) The device of Claim 28, wherein the indicator comprises an IP address associated with the at least one user.

31. (Previously Presented) The device of Claim 19, wherein the computer instructions are further executable to:

access a traffic control rule for the first user that includes an upload network bandwidth limit for the first user; and

determine if the network communication causes the upload network bandwidth limit to be exceeded.

32. (Previously Presented) The device of Claim 31, wherein the computer instructions are further executable to receive the network communication from the first user over a wireless network.

33. (Previously Presented) The device of Claim 19, wherein the computer instructions are further executable to:

access a traffic control rule for the first user that includes a download network bandwidth limit for the first user; and

determine if the network communication causes the download network bandwidth limit to be exceeded.

34. (Previously Presented) The device of Claim 33, wherein the computer instructions are further executable to receive the network communication from the first user over a wireless network.

35. (Original) The device of Claim 19, wherein the computer instructions are further executable to monitor sessions on per user basis.

36. (Previously Presented) The device of Claim 19, wherein the computer instructions are further executable to:

prioritize network bandwidth allocations for networked applications for at least one user based on the corresponding user profile for that user.

37. (Previously Presented) A method executing on hardware for allocating network bandwidth on a per user basis comprising:

at a control device, retrieving a set of user profiles from an authentication database, wherein each user profile corresponds to a specific user in a set of users, wherein each user profile is retrieved from the authentication database based on user credentials provided by that user in connecting to the control device through a user device associated with that user, and wherein each user profile contains an arbitrary number of attributes specifying bandwidth limitations for the corresponding specific user;

at the control device and based on the arbitrary number of attributes in each user profile, establishing user specific rules and conditions that are bound to each user during a control session based on the user device associated with that user and the user credentials provided by that user for the control session, wherein the user specific rules include at least one network bandwidth limit for that user;

for each user in the set of users, the control device regulating network bandwidth usage associated with that user based on the at least one network bandwidth limit established for that user; and

at the control device, dynamically updating the at least one network bandwidth limit for at least one user from the set of users.

38. (Previously Presented) The method of Claim 37, further comprising:
dynamically updating the at least one network bandwidth limit for each user in the set of users.

39. (Previously Presented) The method of Claim 37, further comprising:
dynamically updating the at least one network bandwidth limit for the at least one user from the set of users to account for a new user connecting to the control device.

40. (Previously Presented) The method of Claim 37, further comprising dynamically updating the at least one network bandwidth limit for at least one user based on a time of day.

41. (Previously Presented) The method of Claim 37, further comprising dynamically updating the at least one network bandwidth limit based on utilization averaging for the corresponding user.

42. (Previously Presented) The method of Claim 37, further comprising dynamically updating the at least one network bandwidth limit by modifying a traffic control rule containing the at least one network bandwidth limit.

43. (Previously Presented) The method of Claim 37, further comprising metering network bandwidth usage on a per user basis.

44. (Previously Presented) The method of Claim 37, further comprising establishing a traffic control rule for each user containing the at least one network bandwidth limit for that user.

45. (Previously Presented) The method of Claim 37, further comprising dynamically updating the at least one network bandwidth limit for the at least one user by updating the traffic control rule for the at least one user.

46. (Currently Amended) The ~~device~~ method of Claim 45, further comprising accessing each traffic control rule from an IP table based on an indicator associated with each traffic control rule.

47. (Currently Amended) The method of Claim 46, wherein the indicator comprises a MAC address associated with the at least one user.

48. (Currently Amended) The method of Claim 46, wherein the indicator comprises an IP address associated with the at least one user.

49. (Previously Presented) The method of Claim 37, further comprising:
receiving a network communication from a first user from the set of users over a first network interface of the control device, wherein the network communication is destined for a network connected to a second network interface of the control device;
accessing a traffic control rule for the first user that includes an upload network bandwidth limit for the first user; and
determining if the network communication causes the upload network bandwidth limit to be exceeded.

50. (Previously Presented) The method of Claim 49, further comprising receiving the network communication from the first user over a wireless network.

51. (Previously Presented) The method of Claim 37, further comprising:
receiving a network communication over a network connected to a first network interface of the control device, wherein the network communication is destined for a first user from the set of users;
accessing a traffic control rule for the first user that includes a download network bandwidth limit for the first user; and
determining if the network communication causes the download network bandwidth limit to be exceeded.

52. (Previously Presented) The method of Claim 51, further comprising further comprising receiving the network communication from the first user over a wireless network.

53. (Original) The method of Claim 37, further comprising monitoring sessions on per user basis.

54. (Previously Presented) The method of Claim 37, further comprising prioritizing network bandwidth allocations for networked applications for at least one user based on the corresponding user profile for that user.

55. (Previously Presented) A device comprising a set of computer instructions stored on a hardware_computer readable storage medium, the computer instructions executable by a processor to:

establish user specific rules and conditions including a network bandwidth limit for the user based on attributes in a user profile for the user;

receive a first network communication from a user device associated with the user, wherein the network communication includes user credentials of the user and device information of the user device associated with the user;

retrieve the user profile for the user from an authentication database based on the user credentials of the user, wherein the user specific rules and conditions are bound to the user

during a control session based on the device information of the user device associated with the user and the user credentials of the user provide by the user for the control session;

determine if the first network communication causes the network bandwidth limit to be exceeded;

if the first network communication causes the network bandwidth limit to be exceeded, drop the network communication; and

dynamically update the network bandwidth limit for the user.

56. (Previously Presented) The device of Claim 55, wherein the computer instructions are further executable to establish a traffic control rule for the user containing the network_bandwidth limit.

57. (Original) The device of Claim 56, wherein the computer instructions are further executable to access the traffic control rule from an IP table based on an indicator.

58. (Original) The device of Claim 57, wherein the indicator comprises a MAC address and an IP address associated with the user.

59. (Previously Presented) The device of Claim 55, wherein the user profile specifies network application priorities for networked applications.

60. (Original) The device of Claim 55, wherein the user connects to the device via a network comprising a wireless network.